

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07544 07-33-11

SILICON NPN EPITAXIAL PLANAR TYPE

2SC2508

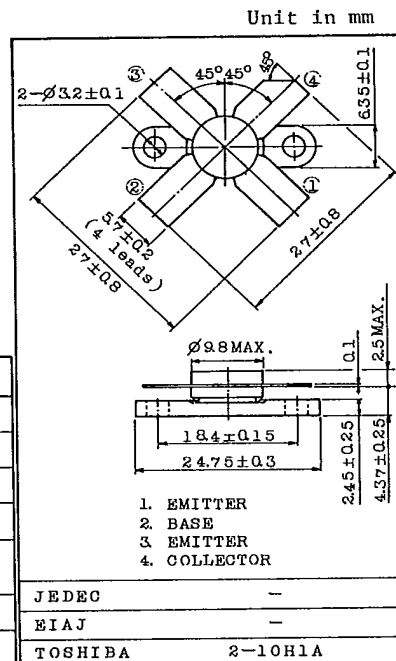
VHF BAND POWER AMPLIFIER APPLICATIONS.

FEATURES :

- Output Power : $P_o=27W$ (Min.)
($f=175MHz$, $V_{CC}=12.5V$, $P_i=4.2W$)

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	40	V
Collector-Emitter Voltage	V_{CE0}	18	V
Emitter-Base Voltage	V_{EB0}	4	V
Collector Current	I_C	6	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	50	W
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature Range	T_{stg}	-65 ~ 175	$^\circ C$



Weight : 4.0g

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

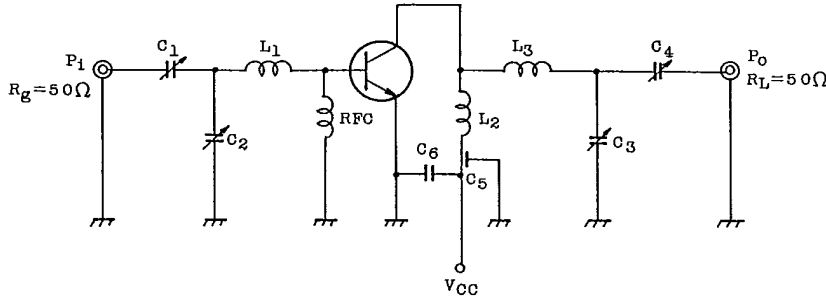
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=15V$, $I_E=0$	-	-	1	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10mA$, $I_E=0$	40	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=25mA$, $I_B=0$	18	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA$, $I_C=0$	4	-	-	V
DC Current Gain	h_{FE}	$V_{CE}=5V$, $I_C=3A$	10	-	150	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$	-	-	80	pF
Output Power	P_o	(Fig.)	27	29	-	W
Power Gain	G_{pe}	$V_{CC}=12.5V$, $f=175MHz$, $P_i=4.2W$	8.0	8.4	-	dB
Collector Efficiency	η_c		60	70	-	%

TOSHIBA CORPORATION

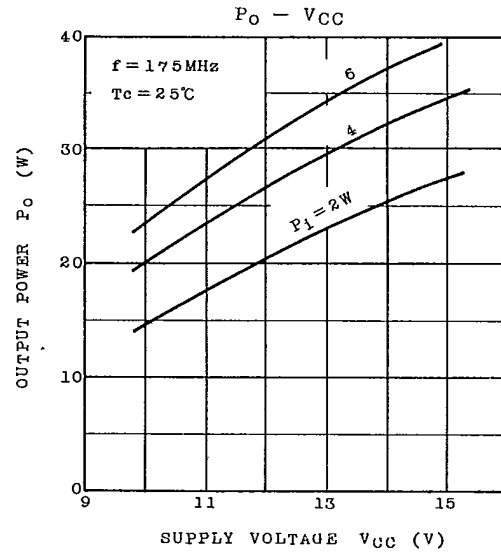
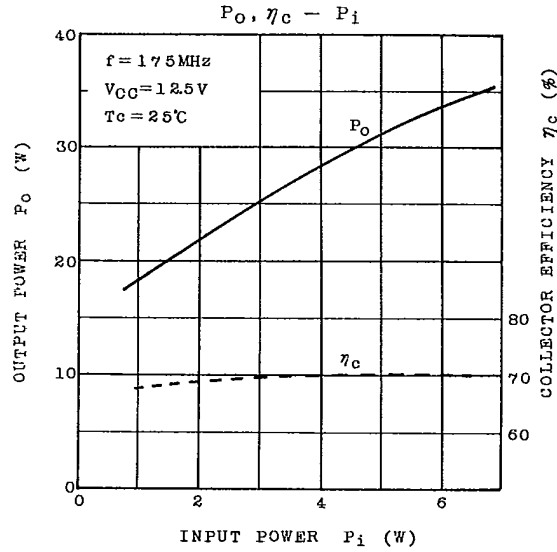
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Fig. P_o TEST CIRCUIT



- C₁ : ~20pF C₂, C₃, C₄ : ~30pF C₅ : 1000pF FEED THROUGH
- C₆ : 0.01μF
- L₁, L₃ : φ1 SILVER PLATED COPPER WIRE, 6ID, 1T
- L₂ : φ1 SILVER PLATED COPPER WIRE, 6ID, 2T
- RFC : φ1 ENAMEL COATED COPPER WIRE, 6ID, 8T



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